

IBM Project-10948-1659246792 x Home Page - Select or create a x flight delay - Jupyter Notebook x

localhost:8888/notebooks/flight%20delay.ipynb

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In [40]: `from sklearn.tree import DecisionTreeClassifier
dc=DecisionTreeClassifier()
dc.fit(x_train,y_train)
dc.score(x_test,y_test)`

Out[40]: 0.9897641299510458

In [41]: `from sklearn.ensemble import RandomForestClassifier
model=RandomForestClassifier()
model=RandomForestClassifier(n_estimators=50,random_state=42)
model.fit(x_train,y_train)
model.score(x_test,y_test)`

C:\Users\dhani\AppData\Local\Temp\ipykernel_2948\3023643624.py:4: DataConversionWarning: A column-vector y was passed when a 1d array was expected. Please change the shape of y to (n_samples,), for example using ravel().
model.fit(x_train,y_train)

Out[41]: 0.8945260347129506

In [42]: `pd.DataFrame(model.predict(x_test)).value_counts()`

Out[42]:

0	1985
1	262

dtype: int64

In [43]: `from sklearn.linear_model import LogisticRegression
lr=LogisticRegression(solver='sag')
lr.fit(x_train,y_train)
lr.score(x_test,y_test)`

C:\Users\dhani\anaconda3\lib\site-packages\sklearn\utils\validation.py:993: DataConversionWarning: A column-vector y was passed when a 1d array was expected. Please change the shape of y to (n_samples,), for example using ravel().
y = column_or_1d(y, warn=True)
C:\Users\dhani\anaconda3\lib\site-packages\sklearn\linear_model_sag.py:352: ConvergenceWarning: The max_iter was reached which means the coef_ did not converge
warnings.warn()

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```
svm=SVC(kernel='sigmoid')
svm.fit(x_train,y_train)
svm.score(x_test,y_test)
```

C:\Users\dhani\anaconda3\lib\site-packages\sklearn\utils\validation.py:993: DataConversionWarning: A column-vector y was passed when a 1d array was expected. Please change the shape of y to (n_samples,), for example using ravel().
y = column_or_1d(y, warn=True)

Out[45]: 0.6822429906542056

In [46]: pd.DataFrame(svm.predict(x_test)).value_counts()

Out[46]:

0	1794
1	453

dtype: int64

In [47]: pd.DataFrame(y_test).value_counts()

Out[47]:

0	1802
1	445

dtype: int64

In [48]:

```
from sklearn.neighbors import KNeighborsClassifier
knn=KNeighborsClassifier(n_neighbors=5)
knn.fit(x_train,y_train)
knn.score(x_test,y_test)
```

C:\Users\dhani\anaconda3\lib\site-packages\sklearn\neighbors_classification.py:198: DataConversionWarning: A column-vector y was passed when a 1d array was expected. Please change the shape of y to (n_samples,), for example using ravel().
return self._fit(X, y)
C:\Users\dhani\anaconda3\lib\site-packages\sklearn\neighbors_classification.py:228: FutureWarning: Unlike other reduction functions (e.g. 'skew', 'kurtosis'), the default behavior of 'mode' typically preserves the axis it acts along. In SciPy 1.11.0, this behavior will change: the default value of 'keepdims' will become False, the 'axis' over which the statistic is taken will be eliminated, and the value None will no longer be accepted. Set 'keepdims' to True or False to avoid this warning.
mode, _ = stats.mode(y[neigh_ind, k], axis=1)

Out[48]: 0.9327992879394749

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